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TO PUBLIC COMMENTS OF THE PENOBSCOT NATION

**ON THE APPLICATION OF THE STATE OF MAINE
TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
FOR THE AUTHORIZATION TO ADMINISTER THE NATIONAL
POLLUTANT DISCHARGE ELIMINATION SYSTEM**

February 29, 2000

Submitted to:

United States Environmental Protection Agency, Region I
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In Re:

No. _____

February 28, 1997

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Nation

TABLE OF CONTENTS

	<u>Page</u>
STATEMENT OF INTEREST	1
BACKGROUND	2
I. THE PENOBSCOT INDIAN NATION'S SUSTENANCE AND OVERALL WELL-BEING DEPENDS ON A HEALTHY PENOBSCOT RIVER.	2
A. The Penobscot Nation's Aboriginal Use of the River	2
B. The Penobscot's Treaty and Statutory Rights	4
C. The Penobscot Nation's Tragic Loss of Resources ...	6
II. DIOXIN CONTAMINATION IN THE PENOBSCOT RIVER IS EXTREMELY PERSISTENT AND HAZARDOUS TO HUMAN HEALTH, AQUATIC SPECIES AND WILDLIFE.	8
A. Dioxins Are Extremely Hazardous and Persistent. ...	8
B. Dioxin Contamination in the Penobscot River	12
III. THE NPDES PERMIT ISSUED FOR THE LINCOLN MILL	14
A. The U.S. Fish and Wildlife Biological Opinion on the Permit's Adverse Effects on Bald Eagles ...	15
B. The Final Permit	17
ARGUMENT	19
I. EPA HAS FAILED TO SATISFY ITS TRUST OBLIGATIONS TO THE PENOBSCOT INDIAN NATION.	19
A. The Nature of EPA's Trust Obligations	19
1. The United States' trust obligations to protect the Penobscot Nation's sustenance rights	20

2. EPA must ensure that the permit protects the resources needed for the Penobscot Nation's sustenance rights.	21
3. Procedural and substantive trust duties	26
B. EPA Has Failed to Ensure that the Permit Will Protect the Full Range of Resources Needed for the Penobscot Nation's Sustenance.	31
1. EPA failed to consider the permit's impacts on the full range of resources used by the Penobscot for sustenance.	32
2. EPA failed to consider many ways in which the dioxin discharges from the mill adversely affect health and the environment.	37
C. The Permit Fails to Ensure that Members of the Penobscot Nation Can Safely and Fully Exercise Their Sustenance Fishing Rights.	40
1. By using suppressed fish consumption rates, EPA failed to protect Penobscot members at the cancer risk levels EPA itself deemed appropriate.	41
2. EPA used an outdated and indefensible bioconcentration factor.	45
3. EPA failed to consider additive effects of dioxin-like compounds.	47
4. EPA failed to ensure sensitive subpopulations would be protected.	48
5. EPA's consideration of existing dioxin contamination was cursory and flawed.	49
II. VIOLATIONS OF THE CLEAN WATER ACT	52
A. The Permit Violates Maine's Narrative Water Quality Standards.	52

1. The permit violates Maine's water quality standards that protect fishing.	53
2. Because fishing is a recognized in-stream use, the permit violates Maine's antidegradation policy.	55
3. Maine's antidegradation standard requires EPA to protect wildlife and aquatic biota....	56
4. Allowing dioxin to be discharged into the Penobscot River contributes to the failure of the river to meet state water quality standards.	58
B. EPA Acted Arbitrarily and Capriciously in Calculating the Health Risks from the Dioxin Discharges.	59
INCORPORATION OF OTHER CONCERNS	62
NATURE OF HEARING	62
CONCLUSION	63

The Penobscot Indian Nation¹ hereby requests an evidentiary hearing to contest the United States Environmental Protection Agency ("EPA") Region I Administrator's decision to issue final National Pollutant Discharge Elimination System ("NPDES") permit number ME0002003 to Lincoln Pulp and Paper Company of Lincoln, Maine on January 23, 1997.² This request for an evidentiary hearing is made pursuant to 40 C.F.R. § 124.74.

STATEMENT OF INTEREST

Because the Penobscot Indian Nation is a federally recognized Indian Tribe with Treaty and statutorily protected hunting, fishing, and gathering rights that are jeopardized by this permit, the Penobscot Indian Nation has a direct and substantial interest in the issuance of the permit. The Penobscot Indian Nation has been actively involved in the administrative process leading up to the reissuance of this permit to Lincoln Pulp and Paper Company. The Nation submitted comments on the 1992, 1993, and 1996 draft NPDES permits and on the 1994 and 1995 draft biological opinions for the permit and has had frequent discussions with EPA, the United States Fish and Wildlife Service, and the Maine Department of Environmental Protection. As discussed more fully below, this NPDES permit directly and fundamentally affects the members of the Penobscot

¹ The address for the Penobscot Indian Nation is 6 River Road, Indian Island, Old Town, ME 04468. The telephone number is (207) 827-7776.

² The Penobscot Indian Nation did not receive a copy of the permit until January 30, 1997.

Indian Nation.

The Penobscot Indian Nation contests the NPDES permit issued to Lincoln Pulp and Paper because it violates the United States' trust obligations to the Penobscot Indian Nation and the Clean Water Act. The deficiencies in the final permit are addressed in detail below.

BACKGROUND

I. THE PENOBSCOT INDIAN NATION'S SUSTENANCE AND OVERALL WELL-BEING DEPENDS ON A HEALTHY PENOBSCOT RIVER.

A. The Penobscot Nation's Aboriginal Use of the River

The Penobscot Indian Nation is a riverine people whose history and way of life is inextricably intertwined with the health of the Penobscot River. The Penobscot River and its tributary rivers and streams form the backbone of Penobscot life; they are the source of Penobscot mythology, sustenance, religion, culture, and ties to the past. Historically, the Penobscots used the River for food, transportation, communication, raw materials for various needs, and communal, religious, and cultural pursuits. Today, the River continues to play a key role in the fabric of Penobscot life.

The story of the River's creation attests to its prominent role in the Penobscot's identity:

Long before the coming of the great white swans that carried the fair-skinned people to our shores and in a time when there were creatures much larger than they are today, the People lived along a stream from which they derived much benefit. One day, they noticed that the water in the stream was lower than it had been the day before. With each day, the water level receded

more, and the People began to suffer. It was decided that someone must travel up the now almost dry streambed to learn the reason for this problem, and a person was chosen to do this.

After some time and late in the day, the chosen man came to a mountain blocking the stream. He camped there for the night. In the morning he felt the earth shake and was startled from his sleep. Looking up, he realized that he had camped near the foot of a giant frog. The man asked the creature what it was doing there. The giant frog replied that it was the largest creature on this land and that it was drinking all the water. The more it drank, the bigger and stronger it would become. Unable to do anything, the man returned to his village and informed the elders. It was decided to summon Klose-kur-beh.

Klose-kur-beh was the first man on this land, a man made from nothing, and he had great power. Seeing the dire condition of the People and what was causing it, Klose-kur-beh turned himself into a giant. However, he lacked a suitable weapon to use against the frog. Klose-kur-beh looked around and saw a giant pine tree which he pulled from the ground. He raised the tree in the air and slammed it down on the frog, which burst and spewed water in a thousand directions. As the water fell to the earth, it drained into the depression created by the uprooted pine tree and flowed powerfully from there. That is how the River came to be. The People who lived where the River tumbled down over the huge white boulders took their name from that place—Pana'wampskik. We are that People.³

The Penobscot took not only their name but their very essence from the River. The Penobscots are a hunting and

³ The creation story is told in the videotape "Penobscot: The People and Their River," which was produced by the Penobscot Indian Nation. At an evidentiary hearing, the Nation will offer witnesses to support the statements made in this permit appeal and to describe the tribe's culture, needs, rights, and expectations.

gathering people, following and utilizing the River's resources in a yearly cycle. The tree-like pattern of the River's drainage formed the nucleus of Penobscot life, flowing into the Nation's hunting and fishing territories.

In the fall, the Penobscots dispersed into family bands that went upstream to hunt moose, caribou, and deer with each band generally occupying a particular drainage or tributary stream. The bands returned to Indian Island for the spring salmon migration. It is no coincidence that the falls near Indian Island -- once prime fishing grounds -- is the heart of the Penobscot Reservation. The Penobscots stayed in the River's lower reaches or migrated to the coast throughout the summer to continue fishing and gathering shellfish.

The Penobscot also gathered wild plants throughout the River's drainage for food and medicines. Fiddlehead ferns, which flourished with the spring flooding of the River's banks, continue to be an important food staple. The Penobscots made baskets out of brown ash and their canoes and wigwams out of birch bark.

B. The Penobscot's Treaty and Statutory Rights

The Treaties between the Commonwealth of Massachusetts and the Penobscot Indian Nation confirm that the River was of the utmost importance to the Nation. The white settlers sought vast expanses of land for homesteads, hunting, trapping, and commercial endeavors; the Penobscots retained the River and the islands within it. In the Treaty of 1796, the Penobscots ceded the lands on both sides of the River over a 30-mile stretch, but

reserved the River and its islands for the Nation. See Treaty Made by the Commonwealth of Massachusetts with the Penobscot Tribe of Indians (August 8, 1796) (Exh. A). In the 1818 Treaty, the Penobscot ceded lands on both sides of the River's reaches further North, while retaining four townships and the River for itself. See Treaty Made by the Commonwealth of Massachusetts with the Penobscot Tribe of Indians (June 29, 1818) (Exh. B). The Commonwealth of Massachusetts did not obtain title to the River; instead, it only obtained the right for citizens "to pass and repass any of the rivers, streams, and ponds, which run through any of the lands hereby reserved, for the purpose of transporting their timber and other articles" Id. at 2.

Because the United States never consented to these Treaties as required by the Non-Intercourse Act, their validity was called into question. The Maine Indian Claims Settlement Implementing Act, 30 M.R.S.A. §§ 6201-6214, was passed to resolve the outstanding claims of the Penobscot and other Tribes to land within the State of Maine. The federal Maine Indian Claims Settlement Act, 25 U.S.C. §§ 1721-1735, provided the required federal approval of the state implementing act and the earlier Treaties incorporated into it. See 25 U.S.C. § 1721(b). Together, these Acts confirmed and recognized the Nation's reservations in the 1796 and 1818 Treaties of the River, the islands within it, and sustenance rights. See 30 M.R.S.A. § 6203.8; 25 U.S.C. § 1722(i).

Of critical importance here, these Acts expressly confirm the Nation's sustenance fishing rights. The Maine Implementing

Act recognizes that:

Notwithstanding any rule or regulation promulgated by the commission or any other law of the State, the members of . . . the Penobscot Nation may take fish, within the boundaries of their respective Indian reservations, for their individual sustenance . . .

30 M.R.S.A. § 6207.4. The Maine Attorney General has since confirmed the Nation's sustenance fishing rights. See Letter from Attorney General James T. Tierney to William J. Vail, Chairman, Atlantic Sea Run Salmon Commission (Feb. 16, 1988). The term "sustenance" denotes more than simple food value; it ensures sufficient fish for both individual consumption and spiritual and ceremonial needs of Tribal members. See Report of the Joint Select Committee to L.D. 2037, reprinted in U.S. Senate Select Committee on Indian Affairs, Hearings on S. 2829, Proposed Settlement of Maine Indian Land Claims, at 345; see also H. Rep. No. 1353, 96th Cong., 2d Sess. 17, reprinted in 1980 U.S. Code Cong. & Admin. News 3786, 3793 ("Nothing in this settlement provides for the acculturation, nor is it the intent of Congress to disturb the cultural integrity of the Indian people of Maine"). Moreover, as a sovereign nation, the Penobscot Indian Nation may regulate its members' fishing activities, and it has a regulatory role over some nonmember fishing, as well. See 30 M.R.S.A. § 6207.

C. The Penobscot Nation's Tragic Loss of Resources

White settlement has led to a steady depletion of the resources used by the Penobscots. By the time Maine became a state in 1820, caribou, moose, and beaver were nearly extinct due

to hunting and trapping by white settlers. The caribou are now gone, but due in part to the Penobscots' conservation measures and species management, the moose herds have rebounded.

Dam construction on the Penobscot River has also taken its toll. The Milford dam, built just hundreds of yards downstream from Indian Island, has decimated the salmon, shad, and alewife fisheries and impeded use of the river for transportation.

With the loss of these resources, the Penobscot have lost not only key food sources, but also important aspects of their culture and identity as a people. An entire generation of Penobscots has grown up without experiencing thriving spring salmon migrations at the falls below Indian Island and the fishing that brought members of the Nation together in celebration each spring.

To conserve the resources, the Nation has sought to limit its members' exercise of their sustenance rights. For example, in the late 1980s, at a time when Maine continued to permit sport fishers to take three Atlantic salmon, the Penobscot Indian Nation stopped netting fish for tribal ceremonies, and tribal members largely curtailed fishing for salmon. With the depleted runs of anadromous fish, the Penobscot have come to depend more on resident nonmigratory fish. However, pollution has contaminated the fish that remain available for the taking.

Lincoln Pulp and Paper Company operates a bleached kraft mill adjacent to the Penobscot Reservation and directly upstream from Indian Island, the site of the last remaining Penobscot village. The mill bleaches wood pulp with chlorine and chlorine

dioxide. This process produces dioxin and other dioxin-like organochlorines as a byproduct. The mill has discharged these compounds into Reservation waters since 1968, leading to a toxic pool that has rendered the fish unfit for human consumption.

II. DIOXIN CONTAMINATION IN THE PENOBSCOT RIVER IS EXTREMELY PERSISTENT AND HAZARDOUS TO HUMAN HEALTH, AQUATIC SPECIES AND WILDLIFE.

A. Dioxins Are Extremely Hazardous and Persistent.

Dioxin is the common name for 2,3,7,8-tetrachlorodibenzo-p-dioxin ("dioxin" or "TCDD"). Under the Maine statutory definition, dioxin refers to any polychlorinated dibenzo-p-dioxin and any polychlorinated dibenzo-p-furan ("furan" or "TCDF"). See 38 M.R.S.A. § 420(A). Furans are dioxin-like compounds that share many of dioxin's physical properties, that cause many of the same types of harmful effects as dioxin, and that add to and even exacerbate dioxin's adverse effects on health and the environment. See Declaration of Dr. Peter L. deFur (Feb. 27, 1997) at ¶ 8 (Exh. C) ("deFur Decl."); Declaration of Dr. Donald C. Malins (March 31, 1992) at ¶¶ 5-12 (Exh. D) ("First Malins Decl.").⁴

Dioxins and furans are poorly soluble in water, but very soluble in fat. As a result, dioxins are not excreted in urine,

⁴ The two declarations from Dr. Donald C. Malins were submitted in court cases concerning pulp and paper mills and dioxin contamination in the Pacific Northwest; however, the general scientific concepts apply to this situation. If an evidentiary hearing is granted, Dr. Malins would provide comparable testimony concerning the Lincoln Pulp and Paper mill and the Penobscot River.

which is mostly water; instead, they dissolve in fat where they remain. See deFur Decl. at ¶ 31. These chemicals accumulate in the fatty tissues of fish, birds, and animals and become magnified up through the food chain. See First Malins Decl. at ¶¶ 17-18.

Pulp and paper mills that use chlorine to bleach paper are a significant source of dioxin contamination, particularly in the state of Maine which has the second largest kraft mill production in the country. Dioxins are a toxic by-product of the use of chlorine in bleaching pulp. See First Malins Decl. at ¶ 5. When discharged into water, dioxins adhere to particles and organic matter (mud and sediments), are ingested by organisms, and become heavily concentrated in fish as they move up the food chain. The sediments at the bottom of river segments where water velocity is retarded (especially near the Milford dam impoundment) represent a significant environmental sink of dioxins that can easily enter the food chain when the sediments are disturbed.

Dioxin is particularly sinister in its persistence in the environment. "Dioxins ... are considered to be essentially nonbiodegradable." EPA, Integrated Risk Assessment for Dioxins and Furans from Chlorine Bleaching in Pulp and Paper Mills 1 (July 1990) (the "Integrated Risk Assessment") at 10. In setting a Total Maximum Daily Load for the Columbia River in the Pacific Northwest, EPA stated that "[a]ll 2,3,7,8-TCDD discharged [to the Columbia River Basin] is assumed to remain ... biologically available" to cause environmental harm. EPA, Total Maximum Daily Loading (TMDL) to Limit Discharges of 2,3,7,8-TCDD (Dioxin) to

the Columbia River Basin, at B-10 (Feb. 25, 1991).

Dioxin is one of the most toxic substances known. See Record of Proceedings, State of Maine Department of Environmental Protection, Public Hearings re: Proposed Chapter 584: Surface Waters Toxics Control Program Interim Statewide Criterion for Dioxin (Nov. 6, 1992), Testimony of Dr. Ellen Silbergeld at III/96-98 (Exh. F). EPA calls dioxin "by far the most potent carcinogen" and "also the most potent reproductive toxin" ever evaluated by the agency. Integrated Risk Assessment at 1; see deFur Decl. at ¶ 16.

Dioxin also causes numerous non-cancer effects. In addition to being shown to impede reproductive function as a result of in utero exposures, dioxin has been linked to disruptions of the hormonal system and suppression of the immune system. Many developmental, reproductive, hormonal, and immune system effects have been shown to occur at relatively low levels of dioxin contamination. See deFur Decl. at ¶¶ 14, 25; Declaration of Dr. Richard W. Clapp (February 27, 1997) at ¶¶ 7-11 (Exh. E) ("Clapp Decl."). In addition, a one-time exposure during pregnancy has been shown to cause developmental effects in the off-spring. See Letter from Dr. Richard E. Peterson to Maine Board of Environmental Protection (Dec. 3, 1992) (Attachment B to Penobscot's October 20, 1993 Comments on the Draft Permit); Testimony of Dr. Claude Hughes at III/78-III/90 (discussing adverse human health effects for reproduction and development). Indeed, "[t]here is no scientific evidence that there is a 'safe' level of 2,3,7,8-TCDD." First Malins Decl. at ¶ 12.

The amount of dioxin contamination in the environment and in human bodies is extremely alarming. Because of dioxin's persistence in the environment and its concentration in fat tissues, human beings are regularly exposed to dioxin through diet. Average everyday exposures are close to exposures that are known to cause non-cancer effects in laboratory animals. See Statement of Assistant EPA Administrator for Prevention, Pesticides, and Toxics Lynn Goldman, M.D. (Sept. 13, 1994) at 2; Clapp Decl. at ¶ 7-8.

Moreover, the chemicals concentrate and remain in the human body. Throughout the United States, individuals have average body burdens that are close to the levels of dioxin that have been associated with some adverse hormonal and immune system effects. See deFur Decl. at ¶ 37; Testimony of Thomas F. Webster at III/66-III/67 (discussing average body burdens for dioxin and how they are calculated). This is true with respect to average body burdens. Populations that have been exposed to more dioxin contamination than average face greater risks, and certain populations are more sensitive to adverse health impacts. See Webster Testimony at III-75; deFur Decl. at ¶ 31. For example, children may have greater adverse health impacts from exposures in utero or early in life. See First Malins Decl. at ¶ 31. One of the most disturbing phenomena is the amount of dioxin contained in human breast milk. The nursing infant is exposed to dioxin levels that have been associated with a wide range of adverse health impacts. See deFur Decl. at ¶ 32.

Subsistence fishers are exposed to much higher levels of dioxin than the general public. See First Malins Decl. at ¶ 30. Because dioxins concentrate so effectively in water, the fatty tissues of fish may be heavily contaminated. Certain preparations, which are common among the Penobscots, such as frying, and eating the skin and fattier tissues, give rise to greater dioxin exposures.

B. Dioxin Contamination in the Penobscot River

Evidence of significant dioxin pollution in the Penobscot River has been mounting for over a decade. EPA's National Bioaccumulation Study conducted in the mid-1980's found elevated dioxin levels in fish below the Lincoln Mill. In July 1987, the State of Maine first issued a health advisory warning that consuming fish from the Penobscot River south of Lincoln posed a serious health threat because fish tissue contained dangerous levels of dioxin. In 1988, EPA's 104 Mill Study documented wastewater concentrations of dioxin from the Lincoln mill at 32 ppq ("parts per quadrillion").

Studies completed in the late 1980's by the Penobscot Indian Nation and Maine Dioxin Monitoring Program found levels of TCDD and TCDF in bass and suckers at South Lincoln to be significantly higher than at upstream sites. The dioxin levels in suckers were the highest documented in any fish found in Maine. Frakes, Robert A., Maine Bureau of Health, Health-Based Water Quality Criteria for 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) (Nov.

1990).⁵

While dioxin monitoring studies in fish conducted in 1990-91 documented decreased levels of TCDD, TCDF, and other Total Toxic Equivalents ("TEQs" -- a measure of comparable contamination from other dioxin-like compounds) compared to the late 1980s, studies conducted from 1992 to the present have demonstrated no statistically significant further reductions. See Mower, B., Maine Department of Environmental Protection, Dioxin Monitoring Program 1995 (July 1996). The concentrations of dioxins in fish in this river still exceed acceptable levels set by state health officials. See Mower, supra; Maine Department of Environmental Protection, Surface Water Ambient Toxic Monitoring Program, 1994 Technical Report (April 1996).

Consequently, health advisories for fish consumption on the Penobscot River south of Lincoln continue today and warn that fish caught in the River may contain dioxin, a chemical suspected of causing cancer in humans. To protect health and safety, the advisory provides that:

1. No more than two meals (eight ounces per meal) of fish taken from this section should be eaten each month.
2. Pregnant women and nursing mothers should avoid eating any fish taken from this stretch of the river. Dioxin may affect the pregnancy or be passed to infants through breast milk.

⁵ The Penobscot Indian Nation has not included studies and official documents from the state of Maine in its exhibits to this appeal on the assumption that EPA has these documents. However, the Nation can readily supply these documents upon request.

3. When preparing fish, areas with the highest potential dioxin content should be trimmed away. These include the skin, fat, belly meat, and dark fat along the backbone and lateral line. Broil, bake or barbecue fish on a rack so juices, which may contain dioxin-rich fats, will drip off. Don't fry the fish.

III. THE NPDES PERMIT ISSUED FOR THE LINCOLN MILL

In 1989, Lincoln Pulp and Paper Company filed an application for reissuance of its NPDES permit authorizing discharges of treated process wastewater, non-contact cooling water, and storm water runoff into the Penobscot River. The previous permit for the Lincoln mill, issued in 1985, imposed no limit on discharges of dioxins.

It has taken EPA eight years to issue a permit limiting dioxin discharged from the mill. Over this period, EPA developed three draft permits and received public comments. While this permit appeal challenges the final permit for not going far enough to protect the Penobscot's health and sustenance rights, the final permit is not simply too little regulation of dioxins, but it also comes too late. Rather than take early action cracking down on the mill's dioxin discharges, EPA preferred to work collaboratively with the company to negotiate a permit that the company would be willing to accept. This method of proceeding exposed the River, its resources, and the people who use them to unregulated dioxin discharges for an inordinate period of time. The United States may well be liable for damages for allowing dioxin contamination to continue, thereby impeding the Penobscot's exercise of their sustenance rights. While the

Penobscot Nation is challenging this permit for not going far enough, the Nation in no way condones EPA's unreasonable delay in restricting dioxin discharges into the Penobscot River.

A. The U.S. Fish and Wildlife Biological Opinion on the Permit's Adverse Effects on Bald Eagles

The bald eagle is important to the culture and religion of the Penobscot Indian Nation. Because the bald eagle is listed as a threatened species under the Endangered Species Act, 16 U.S.C. §§ 1531 et seq., EPA was required to consult with the U.S. Fish and Wildlife Service ("FWS") to ascertain the permit's effect on the bald eagle.⁶ Both EPA and FWS had to ensure that the permit would not jeopardize the continued existence of the bald eagle. See 16 U.S.C. § 1536(a)(2).

The consultation process culminated in issuance of a biological opinion by FWS. See Final Biological Opinion for the Proposed NPDES Permit for the Lincoln Pulp and Paper Company (Aug. 26, 1996) ("Biop."). The biological opinion first surveys the condition of bald eagle populations both in Maine and within the Penobscot Reservation along the Penobscot River below the Lincoln mill. The Maine bald eagle populations have experienced a gradual increase in occupied nest sites in recent years, but have continued to show reduced reproductive rates. See id. at 3. The six eagle pairs nesting on or adjacent to the Penobscot Reservation below the Lincoln mill have reproductive rates below even the state average. Id.

⁶ The bald eagle is also listed under Maine's endangered species law, 12 M.S.R.A. § 7753.

The Fish and Wildlife Service concluded that the permit would cause the reproductive failure of up to six eaglets over the five-year life of the permit. To prevent such adverse impacts, the FWS stated that "the instream concentration of TCDD needs to be considerably lower than the 0.0078 ppq." *Id.* at 19. Moreover, the biological opinion reaches the conclusion that whole body fish tissue levels should be 0.0098 ppt -- far lower than the levels in this stretch of the Penobscot River. The consequences of these lethal dioxin concentrations are exacerbated by the fact that: (1) eagles are attracted to this section of the river because the high temperatures of the mill's discharge prevent it from freezing in the winter, and (2) the mixing zone -- the area where the mill's dioxin discharge is not yet diluted to the 0.0078 ppq instream concentration and thus is far more dangerous -- is larger than that for other mills because of the numerous islands in the Penobscot River.

Despite the dismal picture painted for the Penobscot River bald eagles, the biological opinion concludes that the permit would not jeopardize the existence of bald eagles. The FWS reached this conclusion because the Maine eagle population is analyzed as part of the 24-state Northern States Recovery Region, allowing the survival of the species to depend on the viability of the species over a large area. The biological opinion does not address whether eagles along this stretch of the Penobscot River will survive and prosper.

To minimize the harm to bald eagles, the biological opinion establishes several mandatory permit conditions, including a

monitoring program and reporting requirements. See Biop. at 23. The FWS also recommended that EPA "work towards the elimination of TCDD from all discharges into the Penobscot River." Id. at 24.

B. The Final Permit

EPA issued the final permit for Lincoln Pulp and Paper on January 23, 1997 to supersede the permit issued in 1985. The five-year permit contains effluent limitations, monitoring requirements, and other general conditions.

Effluent discharges are monitored and limited at three areas of the mill: the bleach plant effluent, Outfall 001, and Outfall 002. At the bleach plant, discharge of dioxin is limited to a daily maximum of 10 ppq. This is the stated minimum detection level for dioxin, although this point was heavily contested in numerous comments. Discharge of furans at the bleach plant is limited to a daily maximum of 100 ppq. Both levels are to be monitored twice per quarter using a 72-hour composite sample. Flow and percentage of Chlorine Dioxide substitution is also monitored at the bleach plant.

Outfall 001 discharges treated process water and thermal water to the Penobscot River. At Outfall 001, total suspended solids ("TSS") are limited based on the time of year, and at least 80% of the TSS must be removed. These requirements are monitored once a day with a 24-hour composite sample. The production, process flow, thermal flow, biochemical oxygen demand ("BOD"), temperature, thermal load, pH range, true color, total lead, AOX, acute whole effluent toxicity, and chronic whole

effluent toxicity levels are also regulated. True color is monitored three times a week using a grab sample; however, the color limitations do not become effective until July 1, 1998. The dioxin and furan requirements are the same as at the bleach plant.

Outfall 002 discharges leachate and storm water runoff to the Penobscot River. Flow, BOD, TSS, pH range, true color, acute whole effluent toxicity, chronic whole effluent toxicity, dioxin, and furans are monitored here on a monthly or yearly basis. The permit contains no effluent limits for dioxin or furans from this outfall.

The permit requires Lincoln Pulp and Paper to maintain records that report average monthly production, and to notify EPA as soon as the company knows or has reason to believe that toxic discharges of pollutants not limited in the permit will occur. Lincoln Pulp and Paper also agrees to continue reduction, to the maximum extent practical, of the formation of dioxin, furans, and AOX in the pulping and bleaching operations.

There is an expectation that Lincoln Pulp and Paper will increase production during the life of this permit. The permit explicitly contemplates a production increase through the application of production tiers. Discharge limitations at Outfall 001 for BOD, TSS, and flow change depending upon production tier.

The permit also sets forth a detailed monitoring program required by the biological opinion for bald eagles. The permit requires the use of experimental measuring devices above the mill

and at Outfall 001 to estimate the potential range of dioxin and furan concentrations in aquatic media. Chemical analysis of whole fish prey (smallmouth bass and white suckers) is also required, although the results are not required to be submitted to the Penobscot Indian Nation.

Finally, the permit contains two specific provisions for reopening. First, the permit can be reopened upon petition based on new information not available at the time of issuance. Second, the permit can be reopened specifically to include provisions in EPA's forthcoming Cluster Rule if it is determined that the Cluster Rule contains dioxin effluent limitations more stringent than the permit. This reopener provision does not apply during any time period while the permit has been stayed as a result of a legal challenge and is only applicable with respect to dioxin requirements in the Cluster Rule which are final and not subject to any legal challenge.

ARGUMENT

I. EPA HAS FAILED TO SATISFY ITS TRUST OBLIGATIONS TO THE PENOBSCOT INDIAN NATION.

A. The Nature of EPA's Trust Obligations

Under established United States Supreme Court doctrine, the United States has a fiduciary obligation to protect and defend Indian Treaty rights. As the Supreme Court explained in Seminole Nation v. United States, 316 U.S. 286, 296-97 (1942):

[T]his Court has recognized the distinctive obligation of trust incumbent upon the Government in its dealings with these dependent and sometimes exploited people. In carrying out its treaty obligations with the Indian

Tribes, the Government is something more than a mere contracting party. Under a humane and self imposed policy which has found expression in many acts of Congress and numerous decisions of this Court, it has charged itself with moral obligations of the highest responsibility and trust. Its conduct, as disclosed in the acts of those who represent it in dealings with the Indians, should therefore be judged by the most exacting fiduciary standards.

This trust responsibility has been recognized by courts, Congress, and the Executive Branch throughout the span of federal Indian law. See generally F. Cohen, Handbook of Federal Indian Law 220 (1982 ed.).

1. *The United States' trust obligations to protect the Penobscot Nation's sustenance rights*

In Joint Tribal Council of Passamaquoddy Tribe v. Maine, 528 F.2d 370 (1st Cir. 1975), the First Circuit held that the United States had a trust obligation under the Nonintercourse Act to investigate and take actions to protect Indian Tribes' right of occupancy in aboriginal lands and to challenge actions adversely affecting those rights. The fact that the United States had never entered into a Treaty with the Passamaquoddy Tribe did not eliminate its trust obligation to pursue claims against Maine and Massachusetts for improperly entering into Treaties with that Tribe in violation of the Nonintercourse Act. The United States had refused to pursue a nearly identical claim on behalf of the Penobscot Indian Nation for the same reason.

Ultimately, the 1980 enactment of federal and state statutes resolving the Penobscot Nation's aboriginal land claims extended the United States' trust obligations to the rights confirmed in those statutes. In the Maine Indian Claims Settlement Act,

Congress expressly ratified statutory provisions confirming the Penobscot Indian Nation's hunting, fishing, and gathering rights. See 25 U.S.C. §§ 1721-1723. The Maine Implementing Act provides that:

Notwithstanding any rule or regulation promulgated by the commission or any other law of the State, the members of the Passamaquoddy Tribe and the Penobscot Nation may take fish, within the boundaries of their respective Indian reservations, for their individual sustenance subject to the limitations of subsection 6 [pertaining to necessary conservation measures].

30 M.R.S.A. § 6207.4.

The United States has a fiduciary responsibility to protect the Penobscot's sustenance rights affirmed in the settlement acts. See United States v. Mitchell, 463 U.S. 206, 219-28 (1983). Moreover, federal agencies are bound by the United States' trust obligations. As the Ninth Circuit has explained, "[i]t is fairly clear that any Federal government action is subject to the United States' fiduciary responsibilities toward the Indian tribes." Nance v. EPA, 645 F.2d 701, 711 (9th Cir.), cert. denied, 454 U.S. 1081 (1981). In fact, EPA admits that it has a trust obligation to ensure that the Lincoln mill permit will protect the Penobscot Nation's fishing rights. See EPA Response to Comments at 19.

2. *EPA must ensure that the permit protects the resources needed for the Penobscot Nation's sustenance rights.*

The Supreme Court has recognized that a Treaty right is a guarantee to some level of access to the Treaty resources. Washington v. Washington State Commercial Passenger Fishing

Vessel Ass'n, 443 U.S. 658, 678 (1979) (Treaty right to take fish outside of Reservations "in common with" non-Indians gives Tribal members "a right to 'take'—rather than merely the 'opportunity' to try to catch" fish); United States v. Winans, 198 U.S. 371, 384 (1905) (private landowners must remove fish wheel that destroys downstream fish run at traditional Tribal fishing grounds). Accordingly, Indian Tribes have a right to prevent others from modifying or degrading habitat in a manner that prevents Tribal use of Treaty resources. Kittitas Reclamation Dist. v. Sunnyside Valley Irrig. Dist., 763 F.2d 1032, 1035 (9th Cir.), cert. denied, 474 U.S. 1032 (1985) (upholding court order preventing the closing of the Cle Elum dam to store water for irrigation purposes and requiring the release of water to preserve salmon spawning sites needed to maintain the Yakama Nation's Treaty fishing rights); Confederated Salish & Kootenai Tribes v. Flathead Irrig. & Power Project, 616 F. Supp. 1292, 1293-94, 1297-98 (D. Mont. 1985) (temporary restraining order prevented diversions from streams and reservoirs for irrigation purposes and required that sufficient waters remain to maintain and preserve the native and wild trout fishery within the Flathead Reservation); Confederated Tribes of the Umatilla Indian Reservation v. Alexander, 440 F. Supp. 553, 555-56 (D. Or. 1977) (proposed dam could not proceed because it would destroy Treaty fishing rights by inundating fishing grounds and preventing wild fish from swimming upstream); No Oilport! v. Carter, 520 F. Supp. 334, 371-72 (W.D. Wash. 1981) (federal government has a duty to ensure that an oil pipeline will not degrade fish habitat to an

extent that would deprive Tribes of Treaty rights).

Under the United States' Treaty and trust obligations, EPA must exercise its regulatory power to ensure that Treaty rights and the resources on which those rights depend will be protected. See Northwest Sea Farms, Inc. v. Army Corps of Engineers, 931 F. Supp. 1515 (W.D. Wash. 1996) (upholding the Corps' denial of permits for fish farm net pens based on Corps' fiduciary duty to Indian Tribes and Corps' duty to ensure that Indian Treaty fishing rights are given full effect).

In Pyramid Lake Paiute Tribe v. Morton, 354 F. Supp. 252 (D.D.C. 1973), a Tribe challenged a federal regulation allowing diversions for irrigation purposes of waters that would otherwise flow into Pyramid Lake, a desert lake within the Tribe's Reservation. The diversions would harm natural spawning grounds, turn native fish into endangered species, and eliminate a principal source of the Tribe's livelihood. The district court held that the Secretary of Interior must preserve water for the Tribe and "assert his statutory and contractual authority to the fullest extent possible to accomplish this result." Id. at 256.⁷

⁷ In a case involving a state's duty to refrain from impairing Treaty rights, rather than the United State's obligations, a district court held that a state must avoid degrading habitat to the point where Treaty rights will be destroyed. United States v. Washington, 506 F. Supp. 187, 207 (W.D. Wash. 1980). The Ninth Circuit, sitting en banc, vacated that decision on ripeness grounds, stating "[t]he legal standards that will govern the State's precise obligations and duties under the treaty with respect to the myriad State actions that may affect the environment of the treaty area will depend for their definition and articulation upon concrete facts which underlie a dispute in a particular case." United States v. Washington, 759 F.2d 1353,

Similarly, in Northern Cheyenne Tribe v. Hodel, 12 Ind. L. Rptr. 3065 (D. Mont. 1985), remanded for modification of injunction, 851 F.2d 1152 (9th Cir. 1988) (Exh. G), the Northern Cheyenne Tribe challenged the Secretary of Interior's decision to sell coal leases on lands located in close proximity to the Tribe's Reservation. Rejecting a defense based on the Secretary's other statutory responsibilities, the court stated that "identifying and fulfilling the trust responsibility is even more important in situations such as the present case where an agency's conflicting goals and responsibilities combined with political pressure asserted by non-Indians can lead federal agencies to compromise or ignore Indian rights." Id. at 3071, citing F. Cohen, supra, at 227-28. According to the court:

Ignoring the special needs of the tribe and treating the Northern Cheyenne Tribe like merely citizens of the affected area and reservation land like any other real estate in the decisional process leading to the sale of the Montana tracts violated this trust responsibility. Once a trust relationship is established, the Secretary is obligated, at the very least, to investigate and consider the impacts of his action upon a potentially affected Indian tribe. If the result of this analysis forecasts deleterious impacts, the Secretary must consider and implement measures to mitigate these impacts if possible. To conclude that the Secretary's obligations are any less than this would be to render the trust responsibility a pro forma concept absolutely lacking in substance.

Id.

1357 (9th Cir. 1985) (en banc). This case presents such concrete facts under the United States' trust obligation, rather than in the context of a state's duty to refraining from interfering with a Tribe's property rights.

More recently, in Klamath Tribes v. United States, No. 96-381-HA (D. Or. Oct. 2, 1996) (Exh. H), a district court held that the U.S. Forest Service had violated its trust obligations to the Klamath Tribes by proceeding with timber sales within the Tribes' former Reservation without ensuring, in consultation with the Tribes on a government-to-government basis, that the resources on which the Tribes' Treaty hunting, fishing, and gathering rights depend will be protected. See United States v. Oregon, 699 F. Supp. 1456 (D. Or. 1988), aff'd, 913 F.2d 576 (9th Cir. 1990), cert. denied, 501 U.S. 1250 (1991) (court-approved consultation process for management of harvest and production of Columbia River fish runs among federal, state, and Tribal governments with overlapping regulatory authority and interests); President's Memorandum on Government-to-Government Relations with Native American Tribal Governments, 59 Fed. Reg. 22,951 (April 29, 1994) (directing federal agencies to consult with Tribal Governments on a government-to-government basis over agency actions affecting Tribes and their Treaty rights).

In its Policy for the Administration of Environmental Programs on Indian Reservations (Nov. 8, 1984) ("EPA Indian Policy"), "EPA recognizes that a trust responsibility derives from the historical relationship between the Federal Government and Indian Tribes as expressed in certain treaties and Federal Indian Law. In keeping with that trust responsibility, the Agency will endeavor to protect the environmental interests of Indian Tribes when carrying out its responsibilities that may affect the reservations."

In the context of this permit, the Assistant Secretary of Interior for Indian Affairs has repeatedly urged EPA to fulfill its trust obligations in this permit:

Federal actions which reduce the quantity of fish present in reservation waters, either by adverse impacts to water quality or fish habitat, have been considered a breach of the federal government's trust responsibility towards Indians. Northwest Indian Cemetery Ass'n v. Lyng, 565 F. Supp. 586, 605 (N.D. Cal. 1983), 764 F.2d 581 (9th Cir. 1986). Federal agencies must ensure that environmental degradation, such as exists on the Penobscot River, not be allowed to impair the Nation's fishing rights.

Letter to Carol M. Browner, EPA Administrator, from Ada E. Deer, Assistant Secretary-Indian Affairs (April 8, 1994) at 2; see also Letter to George Papadopoulos, EPA Compliance Branch, from Patrick A. Hayes, Director, Trust Responsibilities, Bureau of Indian Affairs (Oct. 20, 1993). In addressing its trust obligations arising in connection with this permit, EPA also acknowledged that it must ensure that it is safe for members of the Penobscot Nation to exercise their sustenance rights. See EPA Response to Comments at 18-20.

3. Procedural and substantive trust duties

The trust obligation has both procedural and substantive components. It is well-established that the United States has a procedural duty to protect Treaty rights. Nance v. EPA, 645 F.2d at 711; Klamath Tribes v. United States, slip op. at 21; Northern Cheyenne, 12 Ind. L. Rprr. at 3071.

Because the Nation is a sovereign government and the permit affects the Nation's statutorily recognized sustenance rights,

the United States must consult with the Tribe on a government-to-government basis in the decision-making process. See President's Memorandum on Government-to-Government Relations with Native American Tribal Governments, supra. As part of this consultation process, the United States must, in close conjunction with the Tribes, consider fully and devise strategies to avoid adverse effects of federal actions on Treaty resources. See United States Department of Interior Indian Fish and Wildlife Policy, Memorandum to Assistant Secretary for Fish and Wildlife and Parks from Assistant Secretary for Indian Affairs (June 23, 1994) at 2 (Exh. I) (government-to-government relationship requires federal agencies to incorporate Tribes into decision-making, to seek consensus, and to refrain from unilateral interference with Tribal rights); EPA Indian Policy at 1 (noting importance of government-to-government relations and close involvement of Tribal Governments in decision-making and program management).

In Klamath Tribes v. United States, the district court explained that "a procedural duty has arisen from the trust relationship such that the federal government must consult with an Indian Tribe in the decision-making process to avoid adverse effects on treaty resources." Slip op. at 21. Moreover, "[a] determination of what constitutes compliance with treaty obligations should not be made unilaterally; rather, the Tribe's view of the hunting, fishing, gathering, and trapping activities protected by the treaty must be solicited, discussed, and considered." Id.

Embodying these principles, the Northwest Power Act directs the Pacific Northwest Electric Power and Conservation Planning Council, the governmental body charged with developing a program to protect and enhance fish and wildlife in the Columbia River Basin, to give "due weight to the recommendations, expertise, and legal rights and responsibilities of the Federal and the region's State fish and wildlife agencies and appropriate Indian tribes." 16 U.S.C. § 839b(h)(7). The Ninth Circuit has held that the Council must give a high degree of deference to the interpretations and program recommendations made by Indian Tribes and federal and state fish and wildlife agencies. Northwest Resource Information Center v. Northwest Power Planning Council, 35 F.3d 1371, 1384-88 (9th Cir. 1994), cert. denied, 116 S. Ct. 50 (1996); see also Confederated Tribes & Bands of the Yakama Indian Nation v. Baldrige, 898 F. Supp. 1477 (W.D. Wash. 1995) (state violated its consultation obligations by proceeding with a new fisheries management plan without incorporating changes recommended by other governmental bodies).

Executive Order No. 12,898 on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Feb. 11, 1994) and EPA's Environmental Justice Strategy, EPA/200-R-95-002 (April 1995) further acknowledge EPA's obligation to work closely with Tribal Governments to obtain the best possible information to identify and address disproportionately high and adverse human health or environmental effects on people of color. See Executive Order No. 12,898, §§ 3-302(a), 4-401, 6-606; EPA Environmental Justice Strategy at 11-

14. EPA acknowledges that it must implement its programs "recognizing the government-to-government relationship, the Federal Trust Responsibility, Tribal sovereignty, treaty-protected rights, other tenets of Federal Indian law, and particular historical and cultural needs of Tribes and indigenous populations." *Id.* at 13. Moreover, it has bound itself to "take into account the cultural use of natural resources," to "seek contributions from Tribal governments and indigenous people in order to incorporate their traditional understandings of, and relationships to, the environment," and to "work with Tribal governments and indigenous populations to protect and sustain Tribal and indigenous health, environments, and resources." *Id.* at 14.

Apart from its procedural trust obligations, the United States has a substantive duty to ensure that Treaty resources will be protected. In Klamath Tribes v. United States, the court held that "the federal government has a substantive duty to protect 'to the fullest extent possible' the Tribes' treaty rights, and the resources on which those rights depend." *Id.* at 21; accord Pyramid Lake Paiute Tribe v. Morton, 354 F. Supp. at 256 (agencies must exercise their authority "to the fullest extent possible" to protect Treaty rights). Similarly, in Northern Arapahoe Tribe v. Hodel, 808 F.2d 741, 750 (10th Cir. 1987), the Tenth Circuit held that the United States has a trust obligation to protect the wildlife resources on which Treaty rights depend. See also Dep't of Interior Indian Fish & Wildlife Policy at 4 (federal agencies must administer programs to prevent

diminishment of Tribal share of fish and wildlife resources). In both Klamath Tribes and Pyramid Lake Paiute Tribe, this duty included the obligation to ensure that habitat will support populations of fish and wildlife needed to sustain Tribal use. See also USDA Regulation No. 1020-6, Policy on American Indians and Alaska Natives (Oct. 16, 1992) at 3 (Forest Service must "protect and maintain the lands, resources, and traditional use areas of Indians") (Exh. J). Moreover, "[w]here an irreconcilable conflict arises between Treaty rights and other statutory considerations, tribal rights will generally take precedence." Dep't of Interior Indian Fish & Wildlife Policy at 4; Klamath Tribes v. United States, *supra*, at 10 ("compliance with all applicable environmental laws does not necessarily mean that treaty rights have not been violated").

In sum, as the Assistant Secretary of Interior admonished, EPA "must ensure that environmental degradation, such as exists on the Penobscot River, not be allowed to impair the Nation's fishing rights." Letter to Carol M. Browner, EPA Administrator, from Ada E. Deer, Assistant Secretary-Indian Affairs at 2 (April 8, 1994). According to the Bureau of Indian Affairs,

It is therefore incumbent upon EPA in determining risk levels or in authorizing such discharges to not merely consider the risks to Penobscot Indian health resulting from consumption of such contaminated fish, but, more importantly, to protect tribal members from such contamination. Thus, while calculated risks may fall within the "acceptable bounds of risk EPA has authorized" under the Clean Water Act, such risks are not acceptable for a sub-population, traditionally dependent upon fish for sustenance. This is particularly crucial when, as here, the federal

government has a trust responsibility to protect the resources of that subpopulation.

Bureau of Indian Affairs October 20, 1993 Letter at 2.

Pollution in the Penobscot River has made it hazardous for members of the Penobscot Nation to exercise their sustenance rights. Fear of cancer and other adverse health effects has greatly (and wisely) curtailed the exercise of the Nation's fishing rights over the past decade. EPA has both the power and the duty to ensure that it will once again be safe for members of the Penobscot Nation to sustain themselves from the River's resources. Instead of meeting its trust obligations to the Penobscot Nation, the Regional Administrator for EPA Region 1 told Tribal representatives that the Lincoln permit would be no more stringent than what EPA would require of the other Maine kraft mills. See Letter to Steve Silva, EPA's Maine Office of Ecosystem Protection, from Paul Bisulca, Penobscot Nation (Dec. 9, 1996) at 1. Tragically, as a result of EPA shunning its fiduciary responsibilities, the permit issued by EPA falls far short of fulfilling this solemn duty to the Penobscot Nation.

B. EPA Has Failed to Ensure that the Permit Will Protect the Full Range of Resources Needed for the Penobscot Nation's Sustenance.

In assessing the adverse effects of the Lincoln mill permit, EPA focused exclusively on: (1) the number of additional human cancers likely to occur as a result of consumption of water and fish contaminated by new dioxin discharges; and (2) whether the permit will jeopardize the survival of bald eagles throughout a large geographic area within the meaning of the Endangered

Species Act. While the following section discusses flaws in EPA's assessment of cancer risks, this section highlights the many issues of critical importance to the Penobscot Nation that EPA never addressed at all.

1. *EPA failed to consider the permit's impacts on the full range of resources used by the Penobscot for sustenance.*

EPA acted as if members of the Penobscot Nation live and conduct all of their activities other than fishing in an environment unaffected by the river's pollution. EPA's myopic focus distorts the nature of Penobscot life and sustenance rights.

All facets of Penobscot life depend on a healthy river ecosystem. Not only do members of the Penobscot Nation consume fish from the river, but they eat a wide array of wildlife species, including many like muskrat, turtles, and waterfowl that consume large amounts of fish; they gather plants from the river's banks for foods and medicines; they trap wildlife for food and furs and to make ceremonial regalia; they use trees that depend on clean water for basketry; they use the river for transportation and recreation; and they engage in a variety of cultural and communal pursuits that bring them into direct contact with the river.

Under the United States' trust responsibility, EPA has an obligation to consult with the Nation to identify the full range of sustenance resources affected by the permit. The Nation is uniquely able to identify the species on which members of the

Penobscot Nation depend, the importance of various species for subsistence and cultural purposes, and the impact on Tribal members and the Nation as a whole of diminishing rights to hunt, fish, or gather certain species. EPA failed to adequately consult with the Nation to obtain an accurate and full understanding of the sustenance rights at stake and the impact of the permit on those rights. Without such an understanding, EPA cannot ensure that the permit will protect the Penobscot's sustenance rights.

Not only did EPA's failure to consult on the full range of resources affected by the permit violate the United States' trust obligations, but it also defied the requirements of EPA's recent Environmental Justice Strategy. EPA did not: (1) take into account the Penobscot's cultural use of natural resources; (2) consider or incorporate the Penobscot's traditional perspective or relationship to the environment; or (3) ensure that the permit will sustain the various resources used by the Penobscots for sustenance. See EPA's Environmental Justice Strategy at 14.

Not surprisingly, the permit will have many adverse impacts on the Nation that EPA overlooked entirely. For example, the discharge from the mill is sufficiently high in temperature to prevent freezing in the stretch of the river directly downstream from the mill. As a result, members of the Nation who travel on the frozen river to Reservation islands throughout the winter months are denied access to the islands below the mill and the resources on those islands.

Particularly alarming is EPA's failure to assess the levels of dioxin contamination in the mixing zone. The mixing zone is the area with some of the best access for tribal fishing. EPA projects that the 0.0078 ppq level of contamination will not be reached until after dilution with harmonic mean river flow. See 1993 Draft Permit Fact Sheet Attachment H, I. Dioxin levels in the mixing zone will be above the 0.0078 ppq level. Not only is the mixing zone for Lincoln Pulp and Paper relatively large, but many of the Reservation islands are in the mixing zone -- the area of higher river water concentration. In fact, the discharge pipe for the Lincoln Pulp and Paper mill is within 20 yards of one of the largest islands on the Reservation.

Likewise, EPA failed to consider the permit's effect on bald eagles and other fish-eating wildlife species beyond the limited context of its Endangered Species Act obligations. Armed with the FWS's biological opinion, EPA inquired no further. However, the FWS asked only whether the taking of bald eagles along this stretch of the Penobscot River would jeopardize the overall survival of the species. While it concluded that the species as a whole would survive, some Penobscot eagles would not. Indeed, dioxin concentrations must be far lower than the permit allows to protect Penobscot eagles. EPA and the FWS overlooked the spiritual significance of bald eagles to the Penobscot Indian Nation. Members of the Nation gather eagle feathers for ceremonial purposes and are spiritually enriched by the presence of eagles in their native lands. If bald eagles thrive in Minnesota or even Vermont, members of the Penobscot Nation will

still suffer as a result of declining eagle populations along the Penobscot River. Indeed, the six eaglets that will not be produced because of the permit are the very eagles that are most likely to be observed and used by the Penobscots since their nests are adjacent to or within the Penobscot Indian Reservation. The reproductive rate of these eagles is below the average in Maine and below what supports a healthy eagle population. See Biop. at 3. According to the FWS, bald eagle reproductive failures will be caused by the instream dioxin concentrations that will result from the discharges authorized by the permit.

Similarly, many species other than fish provide sustenance for the Penobscot people. Members eat muskrats, snapping turtles, and fiddlehead ferns. EPA never considered the extent to which these food sources are contaminated or the full dietary impact of dioxin and other toxic contamination from the mill on Penobscot members.

The biological opinion does not bode well for other wildlife species in and around the Penobscot Reservation. Certain species are particularly sensitive to dioxin. See deFur Decl. at ¶¶ 40-43; Declaration of Donald C. Malins (March 31, 1993) at ¶ 7 (Exh. K) ("Second Malins Decl"). EPA has itself recognized that water quality standards must be more stringent to protect wildlife than the levels set based on human health risks. Id. ¶ 41. The Penobscot Nation's sustenance rights extend to the full range of resources utilized by the Nation. The permit will diminish the number and health of the species available for the Penobscot's

sustenance, yet EPA never evaluated such impacts.⁸

The Penobscot Nation has repeatedly made it clear that additional studies are needed to understand how additional dioxin discharges affect the Nation and the resources used for members' sustenance. Specifically, the Nation has sought a fate and transport study that would discern how dioxin travels through the ecosystem, settles and remains in sediments and particular hot spots, and bioaccumulates in wildlife species of importance to the Nation. Despite the Nation's insistence on the development of such information, EPA has proceeded without an adequate understanding of how dioxin accumulates in the sustenance resources used by the Nation and in the bodies of Penobscot members.

In addition, EPA looked only at a strict quantitative measure of certain health impacts. It never addressed the impacts to the Nation's culture and way of life or other socioeconomic impacts impeding the Penobscot's ability to practice and pass down their culture to future generations.

If members of the Penobscot Nation cannot consume fish from the river, their material well-being is diminished. Unemployment and poverty on the Reservation are above average; sustenance resources are needed for their nutritional value as well as for the sense of self-sufficiency they provide to individuals.

⁸ Remarkably, the permit does not even mandate that the results of the biological monitoring required by the permit will be provided to the Penobscot Nation. This omission is another example of EPA neglecting its trust responsibility.

Many Penobscot members experience uncertainty over their future as a result of the dioxin contamination. Members of the Nation experience higher than average rates of some chronic diseases, such as cardiovascular disease, diabetes, and cancer. Indeed, cancer mortality rates among the Penobscots are more than twice the national average. See Letter from E. Melanie Lanctot, Maine Cancer Registry Program to Jerry Pardilla, Governor, Penobscot Indian Nation (Feb. 9, 1994). With the health of the community already compromised, it is critical to prevent additional toxic exposures that could increase these risks. Fear is rampant among the Penobscot people over individual health and the long-term well-being of the people.

The loss of particular resources deprives the Penobscots not only of food sources, but also of traditional activities that provide the cultural bonding that gives identity to the Nation. The loss is incalculable in terms of individual members' self-worth and the Nation's heritage as a whole.

2. *EPA failed to consider many ways in which the dioxin discharges from the mill adversely affect health and the environment.*

EPA constrained its analysis in other significant ways as well. First, it looked only at exposures through consumption of fish and water from the river. EPA ignored dioxin air emissions from the Lincoln mill and other smokestacks that may affect the Penobscot Reservation, dioxin-contaminated sediments, and dietary exposures to dioxins through other parts of the food chain. Even as to dioxin contamination in fish, EPA considered only

contamination from the water column and ignored food chain bioaccumulation. See discussion infra at pages 45-48.

Second, EPA looked only at cancer effects from dioxin. It never considered other well-established health impacts of dioxin, such as reproductive impacts, suppression of the immune system, or hormone-related illnesses. See deFur Decl. at ¶¶ 23-26; Clapp Decl. at ¶¶ 7-13. In its response to comments, EPA stated: "As to non-cancer risks of dioxin, EPA does not now have acceptable tools for assessing those risks in the context of developing an NPDES permit." EPA Response to Comments at 18. This is simply not true. Tools exist to assess risks of non-cancer effects. See deFur Decl. at ¶¶ 23-26.

The difficulty for EPA is that many segments of the population have background dioxin levels at or near the levels shown to have such effects. EPA has identified a reproductive reference dose for dioxin that is two to five times lower than the exposures to Penobscot subsistence fishers under the permit. See Clapp Decl. at ¶ 8; deFur Decl. at ¶ 37. It is imprudent from a public health perspective to add more dioxin to the environment, particularly in geographic areas and media where background levels are already excessive. See Clapp Decl. at ¶ 12; Testimony of Dr. Claude Hughes at III/90 ("Because existing levels of dioxin in people's bodies are of significant reproductive and developmental concern, regulatory efforts should be focused on severely reducing, if not eliminating, sources that create body burdens of this group of chemicals."). Indeed, in a comparable situation, our society made a decision not to allow

additional exposures to lead. It is not that EPA has no tools to assess non-cancer risks from dioxin; instead, EPA is refusing to confront the risks already faced by the Penobscots and the reality that this permit will likely push members of the Nation over the threshold for numerous adverse health effects.

Third, to determine the full impacts of additional dioxin exposures, EPA must consider the effects of dioxin-related illnesses on members of the Penobscot Indian Nation. To conduct this analysis, EPA should have consulted with the Nation to determine whether Tribal members are predisposed to certain kinds of adverse health impacts because, for example, of poor nutrition, predisposition to diabetes, or cigarette smoking. It is also critical to determine whether members of the Penobscot Nation have access to adequate health care services for treating dioxin-related illnesses.

It is truly unfortunate that this permit has come this far without EPA consulting with the Nation to obtain a full understanding of the nature of the rights at stake and the permit's impact on the Penobscot people. The Nation urges EPA in the strongest terms to grant this appeal and do what it should have done long ago -- engage the Nation in a full dialogue over the permit's effects on the Penobscot and their sustenance rights and over alternatives that will have less severe effects.

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C. The Permit Fails to Ensure that Members of the
Penobscot Nation Can Safely and Fully Exercise Their
Sustenance Fishing Rights.

Even as to the one matter addressed by EPA -- cancer risks from consumption of dioxin-contaminated fish and water -- EPA's risk assessment is inadequate to ensure that the members of the Penobscot Nation can safely and fully exercise their sustenance fishing rights.

To understand the flaws in EPA's risk assessment, it is necessary to review EPA's stated goal and methodology. At the outset, EPA asserted that it sought to limit new cancer risks from the permit to the average Penobscot fish consumer to one-in-a-million -- the level of protection EPA applied when it set risk standards in its National Toxics Rule and the level that the state of Maine has chosen for other cancer-causing toxins. This approach is also consistent with the Maine Bureau of Health's recommendation that protection of high fish-consuming subpopulations be the focus of water quality standards. See Frakes, supra, at 4.

EPA used a mathematical formula to calculate the river water concentration of dioxin that would yield only one additional cancer in a million. First, EPA derived an acceptable daily dioxin dose per kilogram of body weight based on dioxin's potency. Second, EPA assumed a body weight of 70 kilograms -- the average weight of an adult. Third, EPA used a bioconcentration factor (described below) to determine the amount of dioxin in fish, and it assumed the consumption of two liters of contaminated water per day. Fourth, based on fish consumption

data described below, EPA determined an amount of dioxin contamination in fish that would result in the selected risk level -- 0.039 ppt. Finally, EPA calculated the river water concentration that would yield this level of fish contamination - - 0.0078 ppq.

EPA's risk assessment suffers from five fatal flaws. First, EPA used erroneous fish consumption numbers. Second, EPA used an outdated and discredited measure of fish contamination from dioxin. Third, EPA looked only at dioxin and failed to consider the well-established additive effects of other dioxin-like compounds. Fourth, EPA failed to consider the risks presented to sensitive subpopulations, such as developing fetuses or nursing infants. Fifth, EPA failed to consider the extensive contamination in the river from past dioxin discharges from the mill and the pre-existing dioxin body burdens from past exposures. As a result of these flaws, EPA's risk assessment grossly underestimates the health risks to the Penobscots from exercising their sustenance rights.

1. *By using suppressed fish consumption rates, EPA failed to protect Penobscot members at the cancer risk levels EPA itself deemed appropriate.*

To estimate Tribal fish consumption, EPA relied on an informal user survey conducted in 1991 -- several years after the fish advisory was in place. When EPA indicated its intent to use this survey for its risk assessment, the Director of the Penobscot Department of Natural Resources warned EPA that the survey did not accurately reflect current or historic fish

consumption:

[T]he Penobscot Nation does not consider the survey to accurately reflect current fish consumption rates for the tribe.

When we conducted our survey, we specifically asked tribal members whether they consumed fish from the Penobscot River and if not, why not. A substantial majority of survey respondents indicated that they did not eat fish from the river, not because they did not want to, but because they had concerns about the safety of doing so. Most of the concerns were directly related to pollution issues. It is our belief that tribal members would be consuming greater quantities of fish from the Penobscot River, were it not for the presence of Dioxin and fish consumption advisories.

Additionally, from my 15 years of experience in dealing directly with the tribal membership, I am convinced that there is a large percentage of members that are active fishermen that are not represented in the survey. These are types of people that spend a great deal of time on the reservation fishing, hunting and gathering various food sources. These members practice a so-called "traditional" lifestyle and generally do not respond well to written surveys.

Letter to David Pincumbe, EPA Region I Water Quality Division, from John S. Banks, Director, Penobscot Department of Natural Resources at 1 (March 5, 1993) (Attachment C to Penobscot Permit Comments (Oct. 20, 1993)); see also Testimony of Dr. Barbara Knuth at III/48 ("Once health advisories are lifted in Maine, fish consumption from those waters will likely increase. Therefore, current fish consumption rates are less than future fish consumption rates in the absence of advisories in the future.").

Despite this cautionary note, EPA used the average fish

consumption rate reported in this survey -- 11 grams of fish per day. In doing so, EPA deviated from its own fish consumption rates for the average subsistence fisher. See EPA Office of Water, Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories, EPA 823-R-93-002, Vol. 1, at 5-6 (Aug. 1993) (noting 140 grams per day as estimate of fish consumption rate for average subsistence fishers). EPA's approach also defied its own Environmental Justice Strategy, which requires the agency to work with Tribal Governments to have the best possible information available to identify and address disproportionately high and adverse human health and environmental effects on minority populations. See EPA Environmental Justice Strategy at 11.

Using the flawed data, EPA determined the instream dioxin concentration that would yield a one-in-a-million cancer risk for an individual who consumed 11 grams of fish per day. In other words, EPA sought to protect the average Penobscot fish consumer at its chosen risk level. Based on 11 grams of fish consumed per day, EPA determined that instream dioxin concentrations must be less than 0.0078 ppq to meet this risk level.

Under the United States' trust responsibility, EPA must protect the Penobscot's sustenance fishing right. Because fish consumption has decreased as a result of pollution in the river and the fish advisory, current fish consumption rates are largely irrelevant. Instead, EPA must ask what amounts of fish (and other sustenance resources) would be consumed by a member of the Penobscot Nation living a traditional lifestyle. Moreover, to

meet its trust obligations, EPA must protect sustenance resource consumption, not the average fish consumer who consumes less.

Ever since EPA misused the Penobscot user survey, the Nation has objected strenuously. Once EPA finally acknowledged that the 11 grams per day did not represent average Penobscot fish consumption prior to the fish advisory, it abandoned its stated goal of protecting the average Penobscot fish consumer at a one-in-a-million cancer risk level. EPA treated the river water concentration of 0.0078 ppq as fixed and calculated the cancer risks that would correspond to the 95th and 99th percentile fish consumption rates reported in the 1991 Penobscot user survey, 144 and 336 grams per day respectively. An individual consuming 144 grams of fish per day would face a 1.26 in 100,000 cancer risk, and a fish consumption rate of 336 grams per day would correspond to a cancer risk of 2.92 in 100,000. See EPA Response to Comments at 19.

No longer did EPA purport to protect the average Penobscot exercising the Nation's sustenance rights at a de minimis cancer risk level. EPA deviated from its policy of preventing cancer risks greater than one-in-a-million when it issues water quality standards. This permit also exceeds the one-in-a-million cancer risk levels set by Maine for other cancer-causing water discharges and for land-spreading of dioxin-contaminated sludge, as well as those recommended by the Maine Bureau of Health and currently under consideration by the Maine Department of Environmental Protection for dioxin water quality criteria in Maine. See Frakes, supra, at 14-16 (recommending 10^{-6} upper

bound lifetime cancer risk for water quality criteria "to obtain maximum protection of the public health, to be consistent with previous [Bureau of Environmental Protection] policy, and to allow for uncertainties which may result in higher than expected risks").

EPA consigned the subsistence fisher to a significantly higher risk than the average adult in the United States for whom it calculated a 6 in ten million cancer risk. EPA relegated the Penobscots to the position of second-class citizens. Members of the Nation have been exposed to disproportionately high toxic contamination from the mill in the past, and EPA is failing to take action to ensure that this will not continue. In essence, EPA is making the members of the Penobscot Nation exercise their sustenance rights at their peril. The United States' trust responsibility, as well as EPA's own Environmental Justice Strategy, compel the agency to do far more.

2. *EPA used an outdated and indefensible bioconcentration factor.*

EPA compounded this fundamental error in its analysis by selecting an outdated and discredited measure of fish contamination. In its calculation, EPA used a bioconcentration factor of 5000.

As a preliminary matter, a bioconcentration factor measures only the concentration of dioxin in fish from the water column; it does not reflect accumulation of the chemical from food and sediments as well as water. In contrast, a bioaccumulation factor takes food intake and sediment exposures into account.

Use of a bioaccumulation factor more accurately reflects natural conditions of fish contamination. See deFur Decl at ¶ 18.

The 5000 bioconcentration factor comes from EPA's 1984 dioxin criteria and is based on fish fillet concentrations rather than whole fish levels. This number no longer represents scientific consensus or the current literature. See deFur Decl. at ¶¶ 19-20.

In 1990, EPA stated that "recent laboratory studies support use of 50,000 as a reasonable BCF to estimate 2,3,7,8-TCDD concentration in edible fish tissue." EPA Office of Water Regulations & Standards, Risk Assessment for 2,3,7,8-TCDD & 2,3,7,8-TCDF Contaminated Receiving Waters from U.S. Chlorine-Bleaching Pulp & Paper Mills (1990). In its Great Lakes Initiative, EPA used a bioaccumulation factor of 50,000 in establishing dioxin criteria; the Maine Bureau of Health recommended the same factor for extrapolating generally from water concentrations to fish in Maine. EPA, Great Lakes Initiative Tier 1 Human Health Criteria for 2,3,7,8 Tetrachlorodibenzo-p-dioxin (1991) (Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20,802 (April 16, 1993)); Frakes, supra, at 21; deFur Decl. at ¶ 20.

Bioaccumulation varies depending upon the lipid content of the particular fish species and whether the measurement is taken for fish fillets or whole bodies. See deFur Decl. at ¶ 21. EPA has recognized bioaccumulation factors as high as 43,000 (per 1% lipid). A bioconcentration factor of 200,000 for whole body levels may be appropriate for certain species of fish. See deFur

Decl. at ¶ 21.

Research conducted by Maine's Bureau of Health and Department of Environmental Protection estimated a range of bioaccumulation factors for fish at South Lincoln of 12,500 to 26,000 for smallmouth bass and 385,000 for white suckers. See deFur Decl. at ¶ 22. As Dr. deFur explains:

Using a bioaccumulation factor of 25,000, one can calculate cancer risks from .0078 ppq river water concentrations of 6.4 in 100,000 and 15 in 100,000 for fish consumption rates of 144 and 336 grams per day. Given that field data for South Lincoln show higher fish tissue concentrations for some fish species, an even larger bioaccumulation factor should be used. Additionally, a higher bioaccumulation factor is warranted because tribal members traditionally eat the skin, fry the fish, or cook the fish whole -- all methods that increase fat intake because fatty layers are found directly under the skin and around the dorsal fin.

Id. Again, EPA defied its own admonition to use the best possible information to assess disproportionate risks to minority communities. See EPA Environmental Justice Strategy at 11.

3. *EPA failed to consider additive effects of dioxin-like compounds.*

EPA conducted its risk assessment based solely on exposures to dioxin, despite the permit's allowance of discharges of furans at ten times the authorized dioxin discharge levels. 2,3,7,8-TCDD is one of hundreds of toxicologically significant compounds created through the pulp and paper bleaching process. See First Malins Decl. at ¶¶ 13-15. "A failure to account for 2,3,7,8-TCDD and other contaminants that already exist in aquatic ecosystems and organisms [] underestimates the risks to these ecosystems and

organisms, as well as to those that consume these organisms." *Id.* at ¶ 16. As the Maine Bureau of Health has cautioned, ignoring furans "results in an underestimation of the total risk from [dioxins and furans] by an unknown amount. Frakes, *supra*, at 12; see also deFur Decl. at ¶ 28.

The FWS asked EPA to consider the additive effects of all dioxin-like compounds. *See* Biop. at 24. For unexplained reasons, EPA failed to measure the full impacts of these discharges in its risk assessment, despite the permit's authorization of furan discharges at ten times the level of dioxin discharges. Maine state monitoring reports reveal the presence of additional dioxin-like toxins in the Penobscot River. *See* Mower, *supra*; Maine Department of Environmental Protection, Surface Water Ambient Toxic Monitoring Program, 1994 Technical Report (April 1996). By failing to account for the additive effects of dioxin-like compounds in the mill's discharge, EPA underestimated the risk to the Penobscots.

4. *EPA failed to ensure sensitive subpopulations would be protected.*

Since EPA used a body weight of 70 kilograms, it measured risks to adults and overlooked the risks to children. Moreover, as discussed above, EPA ignored two of the most vulnerable populations -- the developing fetus and nursing infants. Many studies have documented severe impacts at these sensitive lifestages, and individuals receive 12% of their lifetime doses in these early stages. *See* deFur Decl. at ¶ 32. Yet EPA failed entirely to consider the impacts of dioxin contamination from the

mill on these sensitive subpopulations.

The Bureau of Health of the Maine Department of Human Services has developed a peer-reviewed approach for establishing water quality criteria that ensure no significant human health risk from fish consumption. The Bureau of Health stressed that "sensitive groups (e.g. pregnant women) will be the focus for protection, rather than the average or standard individual." Frakes, *supra*, at 4. Ignoring these life stages at which extremely harmful effects may well occur lacks any credible public health justification. See Hughes Testimony at III/78-III/90; deFur Decl. at ¶ 38. As a result, EPA abdicated its obligations to protect the next generation of the Penobscot people.

5. *EPA's consideration of existing dioxin contamination was cursory and flawed.*

Until the final permit stage, EPA acted as if the Penobscot River is a pristine, unspoiled river. Unfortunately, this is far from the case. The Penobscot River has borne the brunt of years of toxic contamination, as the fish advisory and biological opinion on bald eagles attest.

In response to the Nation's persistent objections, EPA purported to address existing dioxin contamination at the eleventh hour. However, while EPA assigned a number to represent existing contamination, a closer look at the way it derived this number reveals that it has no bearing to the real condition of the river as a result of the mill's past dioxin discharges.

EPA used state sampling data that measured dioxin contamination in tissues of fish collected above the mill and found no detectable levels. It assumed that these fish had half the detectable levels of dioxin and derived an instream dioxin concentration of 0.0028 ppq -- a number that conveniently results in a total instream dioxin concentration of just slightly less than 0.0078 ppq when added to the concentrations expected to be added by the new discharges. See deFur Decl. at ¶ 29.

Regardless of whether this is an accurate measure of instream concentrations above the mill, where no paper mill discharges have yet affected the fish, it says nothing about the existing dioxin contamination below the mill -- the relevant issue. Years of dioxin discharges have poisoned the river stretch below the mill. See deFur Decl. at ¶¶ 30-31. Given dioxins' extraordinary persistence, the presence of unacceptable levels of dioxins in fish tissues below the mill, and dioxin concentrations below the mill that are lethal to bald eagles, EPA cannot ignore the effects of background contamination on fish below the mill and the people who consume them. EPA cannot ensure the Penobscot's sustenance rights will be protected unless it undertakes a probing cumulative impacts inquiry.

This inquiry must include full consideration of the effect of new dioxin exposures in light of the persistent effects of past exposures. EPA must determine the existing body burdens of Penobscot members. In its draft dioxin reassessment, EPA calculated national body burden averages, but recognized that more highly exposed subpopulations, like the Penobscots, have

higher body burdens. See Webster Testimony at III/73. To determine whether it will be safe for the Penobscots to exercise their sustenance fishing rights if additional dioxin discharges are permitted from the mill, EPA must determine the existing dioxin body burdens.

* * *

Ultimately, the core issue for the Nation is when will it be safe for Penobscot members to exercise their full treaty rights to fish, gather plants, and hunt fish-eating species, and to pursue cultural activities that depend on or benefit from the presence of other species, such as eagles, that are adversely affected by dioxin contamination.

EPA has failed to undertake a rigorous analysis of the current state of contamination in the river and the length of time it will take the river to recover to a level that will permit the full exercise of sustenance rights. The permit indicates little more than a hope that the fishery will recover. The biological opinion noting likely eagle reproductive failures clashes with this unsupported belief, as do the annual fish tissue sampling reports of dioxin contaminated fish. EPA has not accurately determined the current state of the river's contamination, nor has it worked with the Nation to obtain a full understanding of the species and aspects of the Nation's culture and lifestyle that are adversely impacted by the contamination. EPA has simply failed to promote a speedy and full recovery of the river, in violation of its trust obligations to the Penobscot Nation.

II. VIOLATIONS OF THE CLEAN WATER ACT

A. The Permit Violates Maine's Narrative Water Quality Standards.

Congress enacted the Clean Water Act ("CWA") to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA § 101(a), 33 U.S.C. § 1251(a). To achieve this objective, Congress declared the national goal of eliminating the "discharge of [all] pollutants into navigable waters" by 1985, CWA § 101(a)(1), and of attaining "water quality which provides for the protection and propagation of fish, shellfish, and wildlife" by July 1, 1983. CWA § 101(a)(2).

For discrete point source discharges, Congress created the National Pollution Discharge Elimination System ("NPDES") permitting scheme. See 33 CWA §§ 301(a), 402. The Clean Water Act mandates that every NPDES permit contain sufficient pollutant release limitations to allow the waterway receiving the pollutant to meet state water quality standards.

Water quality standards consist of three components: (1) the "designated uses" of the waters, such as fishing, swimming, drinking, or protection of aquatic life; (2) "water quality criteria" necessary to protect such uses, which may be expressed in narrative form, as numeric criteria, or both; and (3) an "anti-degradation" requirement, prohibiting deterioration or degradation of surface waters from current conditions. See CWA § 303(c)(2)(A); 40 C.F.R. §§ 130.3, 131.2; PUD District No. 1 v. Jefferson County, 114 S. Ct. 1900, 1905-06 (1994); Environmental Defense Fund, Inc. v. Costle, 657 F.2d 275, 288 (D.C. Cir. 1981).

(approving use of narrative criteria).

States have the principal responsibility for establishing water quality standards, see CWA §§ 303(a)-(d) & 303a, and NPDES permits must incorporate discharge limitations necessary to satisfy state standards, regardless of whether the standards are expressed in narrative or numeric form. See CWA § 301; American Paper Institute, Inc. v. EPA, 996 F.2d 346, 350 (D.C. Cir. 1993) ("On its face section 301 imposes this strict requirement as to all standards -- i.e., permits must incorporate limitations necessary to meet standards that rely on narrative criteria to protect a designated use as well as standards that contain specific numeric criteria for particular chemicals.") Narrative criteria, although inherently more difficult to incorporate into a permit, cannot simply be ignored. See Natural Resources Defense Council v. EPA, 915 F.2d 1314, 1317 (9th Cir. 1990).

1. *The permit violates Maine's water quality standards that protect fishing.*

Maine has adopted general narrative water quality standards governing discharges of toxic substances to its rivers and streams. Narrative standards "are designed to provide additional protection beyond that conferred by the numeric limits of other water quality standards." State of Oklahoma v. EPA, 908 F.2d 595, 618 (10th Cir. 1990), reversed on other grounds, 112 S. Ct. 1046 (1992).

Maine water quality standards establish that the Penobscot River below Lincoln, a "Class C" river, must be suitable for fishing and as a habitat for fish and other aquatic life. See 38

M.S.R.A. § 465(4)(A); NPDES Permit No. ME0002003 Fact Sheet (1993) at 4. The final permit itself includes an express provision that Lincoln Pulp and Paper's effluent "shall not contain materials in concentrations or combinations which ... would impair the usages designated by the classification of the receiving waters." See Permit at 6. However, the Penobscot River is not attaining its Class C classification due to the discharge of dioxin by Lincoln Pulp and Paper.

In 1989, the Maine Department of Environmental Protection reported the Penobscot River, pursuant to § 304(1)(1)(B) of the Clean Water Act, on a list of stream segments which are not attaining state water quality standards due entirely or substantially to the point source discharge of toxic pollutants. The Penobscot River graced this list because of the point source discharge of dioxin from the Lincoln Pulp and Paper mill. EPA approved Maine's 304(1) list on June 5, 1989. Permit Fact Sheet at 6.

Because of continued discharge of dioxin, the designated use of fishing has been and is currently impaired. In its 1994 Water Quality Assessment to Congress, known as the "305(b) Report" the Maine Department of Environmental Protection designated the Penobscot River as "water quality limited" due to the presence of dioxin in fish tissue. See Maine Department of Environmental Protection, State of Maine 1994 Water Quality Assessment, A Report to Congress Prepared Pursuant to Section 305(b) of the Federal Water Pollution Control Act, as Amended, at 27. Continued dioxin discharges further damage the river's fisheries

resources.

The Penobscot Indian Nation believes that there is no acceptable level of dioxin contamination in fish. However, even under EPA's risk assessment scheme, the dioxin levels in this permit violate state water quality standards. Under EPA's calculations, the water quality criteria proposed in this permit -- 0.0078 ppq -- establishes a maximum acceptable level of dioxin in fish tissue of 0.039 ppt.⁹ The levels of dioxin in the fillets (not whole fish) of Penobscot River bass, measured in Total Toxicity Equivalents ("TEQs") exceed this level by 48 times.¹⁰ The continued discharge of dioxin renders this segment of the river unsuitable for aquatic life and for fishing. Therefore, it violates the state's narrative water quality standards.

2. *Because fishing is a recognized in-stream use, the permit violates Maine's antidegradation policy.*

Maine's antidegradation policy maintains existing in-stream uses and protects the water quality necessary for those existing uses. Existing in-stream uses are those uses that occurred on or after November 28, 1975. See 38 M.S.R.A. § 464(4)(F)(1). In determining existing in-stream uses, the state must consider the designated uses for a stream segment, the aquatic, estuarine, and marine life present, wildlife that use the water, habitat

⁹ .0078 ppq x 5,000 (BCF) = 0.039 ppt

¹⁰ Bass fillet TEQs measured in 1995 ranged from 0.7 to 1.3 ppt at South Lincoln and 0.4 to 1.9 ppt at Veazie (Mower, *supra*, 1996).

existence, ecological significance, and historical/social significance. The "[u]se of the water body to receive or transport waste water discharges is not considered an existing use for purposes of this antidegradation policy." 38 M.S.R.A. § 464(4)(F)(1)(a)-(e).

Nor can EPA hide behind certification issued by the state pursuant to § 401 of the Clean Water Act. See Certification Pursuant to the Federal Water Pollution Control Act (Jan. 23, 1997). Section 401 is designed to allow the state to certify whether a federal permit complies with state water quality law. The state concluded that several discharge limits in the permit complied with the Clean Water Act. However, the 401 Certification does not address dioxin discharge, even though the section of the Penobscot River below Lincoln Pulp and Paper is water quality limited because of dioxin pollution, not other categories of pollutants. The state's failure to address dioxin discharges is telling. By allowing the additional dioxin discharges, the permit does not protect the existing in-stream use of fishing in violation of Maine's antidegradation policy.

3. *Maine's antidegradation standard requires EPA to protect wildlife and aquatic biota.*

The consumption of fish from this river by bald eagles and other wildlife is an existing in-stream use that is protected by Maine law. However, that use will not be protected by this permit. EPA based its decisions in this permit entirely on protecting human health against the risk of cancer in a pristine environment. Permit Fact Sheet at 10-11. Dioxin, however, is

also extraordinarily toxic to fish and wildlife; it may be the most lethal chemical created by humans. See Second Malins Decl. at ¶¶ 7-8. Further, because dioxin and dioxin-like compounds "bioconcentrate" and "biomagnify" through the food chain, predatory species, including fish-eating mammals and fish-eating birds, are exposed to high concentrations of dioxin occurring in the environment. See Natural Resources Defense Council v. EPA, 806 F. Supp. 1263, 1275 (E.D. Va. 1992) (TCDD concentrates in the fatty tissues of fish, resulting in "dioxin's recognized ability to concentrate in the tissue of living organisms at levels far above those found in the ambient river water"); Second Malins Decl. at ¶ 10 (discussing how organochlorines place wildlife at heightened environmental stress). Moreover, some species are particularly sensitive to dioxin, with harmful effects demonstrated at lower doses than have been shown to affect humans. See deFur Decl. at ¶¶ 40-41.

The FWS biological opinion for bald eagles is the sole analysis of the effect of this permit on wildlife. The biological opinion, as discussed above, found that bald eagles along the Penobscot River could only be protected by much lower levels of dioxin and urged EPA to work to eliminate dioxin discharges to the river. EPA considered the biological opinion in the limited context of the Endangered Species Act. However, EPA has a separate duty under Maine's antidegradation policy to protect wildlife, see 38 M.S.R.A. § 464(4)(F)(1); the agency has failed in that duty.

The permit's exclusive focus on human cancer risk in setting

the water quality criteria ignores the impact of dioxin on wildlife. The biological opinion -- the only analysis performed on wildlife effects -- gives cause for tremendous concern. In its biological opinion, the FWS stated that "the instream concentration of TCDD needs to be considerably lower than 0.0078 ppq, in order to protect bald eagles" and provided a best-estimate wholebody fish tissue level of 0.0098 ppt for the protection of Penobscot River bald eagles. See Biop. at 19 (emphasis added). TEQ levels of dioxin in sucker wholebodies collected from the Penobscot River exceed this best-estimate by up to 255 times.¹¹ Even these levels probably underestimate the risk to bald eagles and other wildlife, since EPA overlooked other toxins already in the river system. See Second Malins Decl. at ¶ 9 (EPA "cannot ignore these [other] chemicals for the purpose of determining the health effects of the single chemical 2,3,7,8-TCDD on organisms ... because by doing so, EPA will underestimate the risks posed to these species."). Because the permit will not protect bald eagles and other sensitive fish-eating wildlife, it violates Maine's antidegradation policy.

4. *Allowing dioxin to be discharged into the Penobscot River contributes to the failure of the river to meet state water quality standards.*

Maine law prohibits the issuance of a permit or license if the standards applicable to the waterbody's classification are

¹¹ Sucker wholebody TEQs measured in 1995 ranged from 1.4 to 2.5 ppt at Veazie (Mower, supra, 1996). Dioxin was not measured at South Lincoln in 1995, although the TEQ at this location ranged from 3.8 to 6.1 ppt in 1994 -- up to 622-times greater than the 0.0098 ppt protective level for bald eagles.

not met unless the discharge does not "cause or contribute" to that failure. See 38 M.R.S.A. § 464(4)(F)(3). Since the Penobscot River is not meeting its classification due to dioxin contamination, and Lincoln both causes and contributes to that failure and will continue to do so with any continued dioxin discharge, EPA must require Lincoln to eliminate its discharge of dioxin. This preferred course of action also flows from EPA's Pollution Prevention Policy (June 15, 1993).

Lincoln Pulp and Paper can work to eliminate its dioxin discharges. Alternative technologies exist that are totally chlorine free and that reuse and recycle water in a closed loop system. See Declaration of Dr. Lauren Blum (Feb. 27, 1997) (Exh. L). This is the direction EPA must move the mill to avoid violating Maine's water quality standards.

B. EPA Acted Arbitrarily and Capriciously in Calculating the Health Risks from the Dioxin Discharges.

Under the Administrative Procedure Act ("APA"), 5 U.S.C. § 551 et seq., agency actions may be set aside if the agency acted arbitrarily or capriciously. As the Supreme Court noted, "unless we make the requirements for administrative action strict and demanding, expertise, the strength of modern government, can become a monster which rules with no practical limits on its discretion." Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 167 (1962) (quotation omitted) (emphasis in original).

To cage the monster of unfettered agency discretion, the APA renders agency action unlawful if the agency has "offered an explanation for its decision that runs counter to the evidence

before the agency" or has not articulated "a rational connection between the facts found and the choice made." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

Here, there are two fundamental flaws in the way EPA calculated the desired river water concentration of dioxin -- that is, the concentration that yields only an additional one-in-a-million cancer risk to humans. First, after EPA acknowledged that it used an inaccurate fish consumption number for the Penobscot Indian Nation, it abandoned its stated risk goal and methodology. See EPA Response to Comments at 19. Instead of recalculating a river water concentration that would limit cancer risks to the Penobscots to one-in-a-million, EPA scrambled to justify the higher cancer risks presented at the more accurate fish consumption rates. Id. Once EPA has decided to protect the Penobscot people at a one-in-a-million cancer risk level, then EPA cannot abandon that goal on a whim when the numbers fail to add up the way EPA would like. "An agency's view of what is in the public interest may change, either with or without a change in circumstances. But an agency changing its course must supply a reasoned analysis." Motor Vehicle Mfrs. Ass'n, 463 U.S. at 47 (quotations omitted). EPA's use of admittedly incorrect fish consumption data, and its subsequent and inexplicable abandonment of its risk goals and methodology are arbitrary and capricious.

Second, EPA used a bioconcentration factor of 5,000 that has no basis in reality. As discussed above, EPA uses a higher bioconcentration or bioaccumulation factor for dioxin, and it

adheres to a formula for deriving these factors that yields a far higher number for this river. See deFur Decl. at ¶¶ 17-22. Experimental values on the Penobscot River below Lincoln Pulp and Paper show a bioaccumulation factor of 12,500 to 26,000 for smallmouth bass and 385,000 for white suckers. Id. By underestimating the bioconcentration factor, EPA acted arbitrarily and capriciously in fulfilling its responsibilities under the Clean Water Act. In short, EPA failed to protect populations residing along the Penobscot River from human health risks.

* * *

While the Penobscot Indian Nation does not agree that there is any safe level of dioxin for human or wildlife consumption, it is clear (using EPA's own calculations) that the Lincoln Pulp and Paper permit will not ensure that the acceptable level of 0.039 ppt of dioxin in fish tissue for human consumption or the 0.0098 ppt of dioxin level in fish tissue necessary for protection of bald eagles will be attained. Further, the proposed permit assumes that Lincoln is discharging into pristine, uncontaminated water. Since the ambient levels of dioxin in fish currently exceed EPA's acceptable human health and wildlife criteria, any additional discharge by Lincoln will cause or contribute to unacceptable levels of dioxin contamination. For these reasons, EPA's decision to allow continued dioxin discharges into the Penobscot River violates the Clean Water Act.

INCORPORATION OF OTHER CONCERNS

Other concerns not enumerated here that were expressed during the public comment period are incorporated by reference.

NATURE OF HEARING

The Penobscot Indian Nation estimates that it can present its portion of an evidentiary hearing within approximately five days. This estimate is based on the above enumerated issues and is exclusive of issues that may be raised by others requesting an evidentiary hearing for the same permit.

Upon motion of any party granted by the Presiding Officer, or upon order of the Presiding Officer sua sponte, the Penobscot Indian Nation agrees to make available to appear and testify the following:

John Banks, Director of the Penobscot Indian Nation's
Department of Natural Resources

Paul Bisulca, the Penobscot Indian Nation's Representative
to the Maine Legislature

Dan Kusnierz, Water Resources Program Manager, Penobscot
Indian Nation

Other Tribal Leaders, Staff and Members Selected by the
Penobscot Nation.

These witnesses would testify about the nature and importance of the Penobscot Indian Nation's sustenance rights and the effect of dioxin discharges from the mill on those rights, on members of the Penobscot Nation, and the Nation as a whole. Attached to this permit appeal is a videotape, "Penobscot: The People and Their River," which was produced by the Nation for other purposes. It illustrates the type of general information

that would be provided in the Nation's testimony; the testimony would focus more specifically on the mill's effects on particular river resources of importance to the Nation's sustenance.

The Nation would also produce the following witnesses to testify in greater detail concerning the matters addressed in their declarations submitted along with this permit appeal:

Dr. Lauren Blum

Dr. Richard W. Clapp

Dr. Peter L. deFur

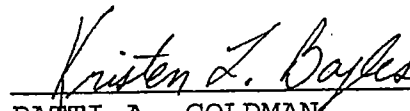
Dr. Donald C. Malins.

CONCLUSION

For the reasons set forth above, the Penobscot Indian Nation requests an evidentiary hearing and asks that the permit appeal be granted.

DATED this 28th day of February, 1997.

Respectfully submitted,



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